IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

INVENTIO AG,

Plaintiff,

: C.A. 08-874-RGA

v.

THYSSENKRUPP ELEVATOR AMERICAS CORPORATION; THYSSENKRUPP ELEVATOR CORPORATION, and THYSSENKRUPP ELEVATOR

MANUFACTURING INCORPORATED

Defendants

CLAIM CONSTRUCTION

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James M. Lennon, Esq., Wilmington, Delaware; David E. Schmit, Esq., Cincinnati, Ohio (argued); Attorneys for Defendants ThyssenKrupp Elevator Americas Corporation, ThyssenKrupp Elevator Corporation, and ThyssenKrupp Elevator Manufacturing Incorporated

March $\underline{0}$, 2013 Wilmington, Delaware AMANA G. WOLWZ
ANDREWS, UNITED STATES DISTRICT JUDGE:

This is a claim construction opinion. Plaintiff Inventio AG has asserted U.S. Patent No. 6,892,861 ("'861 Patent") and U.S. Patent No. 6,935,465 ("'465 Patent") against Defendants ThyssenKrupp Elevator Americas Corporation, ThyssenKrupp Elevator Corporation, and ThyssenKrupp Elevator Manufacturing Incorporated (collectively "ThyssenKrupp"). The patents relate to elevator modernizing technology. This case was remanded from the Federal Circuit after it reversed an earlier claim construction opinion finding the claims indefinite. *See Inventio AG v. ThyssenKrupp Elevator Americas Corp.*, 649 F.3d 1350 (Fed. Cir. 2011). Although the Federal Circuit found the claims definite, it did not construe the terms. *Id.* The claim construction thus follows.

1. "Computing unit"

Term:	"computing unit"
Inventio's proposed	"a computer, including at least one processor and at least one data
construction as the	memory, that: (i) receives from a floor terminal digital signals
term is used	associated with a destination floor and which, depending on the
throughout the	capabilities of the floor terminal, may be only destination call reports,
claims:	or only identification codes, or call reports or identification codes; (ii)
	depending on the type of signals received, either evaluates the
	destination call reports, or associates the identification codes with
	destination floors, or evaluates the destination call reports or associates
	the identification codes with destination floors; and (iii) outputs at least
	one digital destination signal over a shared data bus that is connected to
	a plurality of modernizing devices."
ThyssenKrupp's	"a computer that (1) evaluates the destination call reports, and
proposed construction	(2) associates destination floors with recognized ones of
as used in claim 1 of	the identification codes, and (3) outputs at least one
the '465 patent:	destination signal."
ThyssenKrupp's	"a computer that generates at least one destination signal to the
proposed construction	modernizing device."
as used in claim 1 of	
the '861 patent:	
ThyssenKrupp's	"a computer that (1) evaluates the destination call reports, and
proposed construction	(2) associates destination floors with recognized ones of
as used in claim 11 of	the identification codes, and (3) generates a destination

the '861 patent:	signal for one of the destination floors associated with one of the
	recognized identification codes."
The Court's	"a computer"
Construction:	

The parties dispute the construction of "computing unit" as it is used throughout the claims of both patents. The term is used within claim 1 of the '465 Patent as follows:

b. installing at least one computing unit and connecting the at least one computing unit to said floor terminals for at least one of evaluating the destination call reports and association of destination floors with recognized ones of the identification codes and for the output of a least one destination signal[.]

As an initial matter, ThyssenKrupp submits multiple constructions for "computing unit," arguing that because it performs different functions in different claims, it deserves multiple constructions consistent with the varying functional limitations of each claim. There is a strong presumption, however, that "the same terms appearing in different portions of the claims should be given the same meaning unless it is clear from the specification and prosecution history that the terms have different meanings at different portions of the claims." *Fin Control Sytems Pty, Ltd. v. OAM, Inc.*, 265 F.3d 1311, 1318 (Fed. Cir. 2001). Obviously, the fact that a "computing unit" has diverse functions in of itself does not mean that the nature of that device undergoes a change of scope in relation to each separate claim. There is no evidence that a single "computing unit" cannot perform every function described between the different claims, i.e., "evaluating the destination call reports and association of destination floors" ('465 Patent, claim 1) or "generating at least one destination signal" ('861 Patent, claim 1). This suggests multiple constructions are not appropriate.

Moreover, there is no evidence that "computing unit" should be construed according to anything other than its plain and ordinary meaning, i.e., "a computer." There is no language in

the specification indicating any express definition or specialized meaning for this term. Indeed, both parties use "a computer" as the starting point for their respective constructions. The specification itself states that "the computing unit 30 is, for example, a commercially available personal computer or a workstation," which is consistent with the plain and ordinary meaning. '861 Patent at 6:21-23. This is not inconsistent with ThyssenKrupp's proposed functional constructions, which do provide unnecessary redundancies, but do not conflict with construing "a computing unit" according to its plain and ordinary meaning.

For its part, Inventio's construction also provides redundancies. Inventio construes "a computer" to have "at least one processor" and "at least one data memory." These component parts, however, are intrinsic to the ordinary meaning of "a computing unit" and do not need to be spelled out here. Inventio then combines these already implied components with unnecessary examples of functions that are recited elsewhere in the claims. For example, Inventio construes "computing unit" as "a computer ...that...evaluates the destination call reports." Claim 1 of the '465 patent, however, independently provides "evaluating the destination call reports" as one of the functions of the "computing unit." The remainder of Inventio's construction proceeds in this manner. The Court will thus not adopt Inventio's proposed construction.

The construction of "a computing unit" as "a computer" is consistent with the Federal Circuit's treatment of the term: "As the claim term implies, the written description refers to the computing unit as a computer, where one of its functions is to store and execute a computer program product." *Inventio AG*, 649 F.3d at 1359-60. For these reasons, the Court construes "a computing unit" as "a computer."

2. "Modernizing device"

Term:	"modernizing device"
Inventio's proposed	"A device that: (i) interfaces between a computing unit and an elevator
construction of the	control; (ii) receives from the computing unit, via a shared data bus that
term as used	is connected to it and at least one other modernizing device, digital
throughout the	destination signals indicating a boarding floor and a destination floor;
claims:	and (iii) generates call reports to the elevator control to cause
	an elevator to move to the boarding floor and the destination floor."
Thyssenkrupp's	"a device that (1) reads the destination signal, and (2) converts the
proposed construction	destination signal into at least one call report, and (3) controls the
as used in claim 1 of	elevator control by way of the call report."
the '465 patent:	
Thyssenkrupp's	"a device that (1) converts the destination signal into a call
proposed construction	report, and (2) generates the call report to the elevator
as used in claim 1 of	control for controlling the elevator, and (3) controls the
the '861 patent:	elevator in response to the call reports."
Thyssenkrupp's	"a device that (1) reads the destination signal and (2) converts the
proposed construction	destination signal into a call report for use by the elevator control in
as used in claim 11 of	controlling the elevator."
the '861 patent:	
The Court's	"an electrical circuit that interfaces between a computer and an elevator
Construction:	control"

The parties dispute the construction of "modernizing device." The term as used within claim 1 of the '465 Patent follows:

installing at least one modernizing device and connecting the at least one modernizing device to said floor terminals and said at least one computing unit for reading the destination signal, for converting the destination signal into at least one call report and for controlling the elevator control by way of the call report.

Like its proposal for "computing unit," ThyssenKrupp provides three different constructions for the three claims in which "modernizing device" is used. These constructions simply recite the "modernizing device's" functions as described in the claim language. For example,

ThyssenKrupp construes the term as "a device that (1) reads the destination signal, and (2) converts the destination signal into at least one call report, and (3) controls the elevator control

by way of the call report" as it is used in claim 1 of the '463 Patent. While the Court agrees with the general premise that the "modernizing device" is largely defined functionally, there is no need to repeat functional limitations that are recited elsewhere in the claims. There is further no reason to give the term multiple constructions, as a single "modernizing device" may accomplish all of the claimed functions. The Court will thus not adopt three different constructions for the term.

For its part, Inventio provides a single construction. Inventio argues that "modernizing device" should be construed as (1) "a device that interfaces between a computing unit and an elevator control;" (2) "receives from the computing unit, via a shared data bus that is connected to it and at least one other modernizing device, digital destination signals;" and (3) "generates call reports to the elevator control to cause an elevator to move to the boarding floor and the destination floor." The Court discusses each proposed element in turn.

The Court agrees with Inventio's first proposed element of "modernizing device" as "a device that interfaces between a computing unit [or computer] and an elevator control." This construction is supported by the following passage from the "Summary of the Invention:" "The [modernizing] device has an intermediary function in that it converts the conveying result ascertained by the computing unit into at least one call report to the elevator control." '861 Patent at 2:43-46. "Interface" is a verb that appropriately captures how the "modernizing device" acts as a go-between to the "computing unit" and the "elevator control."

Inventio's next proposed element inappropriately requires the "modernizing device" to be connected to a "shared data bus." First, the specification states that "[t]he data bus 37 can be any modern standard bus. Such data buses are known to the expert." *Id.* at 7:39-41 (emphasis

added). Because "any modern standard bus" may be used, there is no requirement that the invention use a "shared data bus." Second, the "data bus" is not actually an aspect of the "modernizing device" itself. It is separate component.¹ Similarly, Inventio also argues that a "digital destination signal" should be a part of the construction of "modernizing device." "Destination signal," however, is term distinct from "modernizing device" and was construed within the Court's first claim construction opinion as "a data signal providing passenger conveying information that identifies the boarding floor and/or the destination floor." (D.I. 135, p. 72). The Court thus declines to construe "destination signal" for a second time by adding a "digital" modifier to the term.

The next element of Inventio's construction requires the "modernizing device" to be "connected to at least one other modernizing device," but there is no support for this element, as the claims themselves call for "at least one modernizing device," which implies that a single "modernizing device" suffices. The last element of Inventio's construction requires the "modernizing device" to "generate[] call reports to the elevator control to cause an elevator to move to the boarding floor and the destination floor." When this function is required, however, it is spelled out in the claims. *See* '861 Patent, claim 1. The Court thus rejects this element as redundant.

Finally, while the Federal Circuit stated that the "modernizing device" was largely defined according to the description of its functions within the claims, the Federal Circuit also stated that it should be understood to be an "electrical circuit." *See Inventio AG*, 649 F.3d at

¹ Figure 3 shows the databus 37 to be distinct, consistent with the following description: "The computing unit 30 issues by way of the data bus 37 at least one destination signal to the device 36[.]" *Id.* at 7:48-50."

1358. Consistent with the above explanation, "modernizing device" is construed as "an electrical circuit that interfaces between a computing unit and an elevator control."